Army Regulation 700–15
NAVSUPINST 4030.28D
AFJMAN 24-206
MCO 4030.33D
DLAD 4145.7

Logistics

Packaging of Materiel

Headquarters
Departments of the Army,
the Navy,
the Air Force,
the Marine Corps,
and the Defense Logistics Agency
Washington, DC
31 March 1998

UNCLASSIFIED

SUMMARY of CHANGE

AR 700-15/NAVSUPINST 4030.28D/AFJMAN 24-206/MCO 4030.33D/DLAD 4145.7
Packaging of Materiel

This revision--

- Designates authenticated STANAG documents for NATO packaging terms and definitions and levels of requirements (paras 1-3b and 2-2b).
- Prescribes responsibility for compliance with DOD Packaging Data System requirements (paras 1-4a(2), 2-1c(1), and 2-1c(3)).
- Converts the term "industrial packaging" to "commercial packaging" (paras 2-1b, 3-1c, 3-1c(1), 3-1c(2), and 3-6i).
- Incorporates provisions for utilization of the Integrated Logistics Support Program (para 2-1c(3)).
- Dictates the use of nonplastic and noncombustible packaging materials for supplies to Navy ships (paras 2-1t, 2-1u, and 3-9b).
- Redefines levels of protection identifying preservation and packing as separate entities (para 2-2a).
- Introduces a matrix that provides general guidelines for selection of levels of protection (para 3-2a).
- Specifies packaging requirements for mobilization, reserve, and contingency stocks (para 3-2b).
- Updates levels of protection requirements for security assistance shipments (para 3-2c).
- Mandates criterion for packaging of consumable serviceable materiel returns (paras 3-7a(1) and 3-7a(2)).
- Directs the use of prescribed reusable containers throughout the life cycle of serviceable and unserviceable depot level reparables (para 3-7c).
- Introduces the Plastics Removal in Marine Environment Program (para 3-9b).
- Incorporates provisions for the use of electronic media for reports of discrepancy processing (para 3-10).
- Contains guidance on requirements for submission of completed project reports to the Defense Technical Information Center (DTIC) (para 4-2c).
- Incorporates Defense Packaging Policy Group guidance (chap 5).
- Provides guidance on the organization and function of the Container Design Retrieval System (chap 6).

- Establishes guidance identifying lead service activities' areas of responsibility for testing and evaluating packaging materials and processes (chap 7).

- Redefines preservation and packing terms (glossary).

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Effective 30 April 1998

Logistics

Packaging of Materiel

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Acting, Secretary of the Army

By Order of the Secretaries of the Navy, and the Air Force:

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Colonel, United States Army
Headquarters Complex Commandant

History. This printing publishes a revision of this publication. Because the publication has been extensively revised, the changed portions have not been highlighted.

Summary. This regulation implements DOD 4140.1-R, chapter 5, and covers packaging requirements, specifications, levels of protection, and project information exchange requirements. Specifically, this revision incorporates chapters on the Defense Packaging Policy Group, lead Service activities, and the Container Design Retrieval System.

Applicability. This regulation applies to all (Active and Reserve) Department of Defense components (U.S. Army, U.S. Air Force, U. S. Navy, U.S. Marine Corps, and the Defense Logistics Agency) responsible for packaging of materiel throughout its life cycle.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff for Logistics (DCSLOG). The DCSLOG has the authority to approve exceptions to this publication that are consistent with controlling law and regulation. The DCSLOG may delegate this approval authority, in writing, to a division chief within the proponent agency in the grade of colonel or the civilian equivalent.

Army management control process. This joint regulation is not subject to the requirements of AR 11-2. It does not contain internal control provisions.

Supplementation. For Army, supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from Headquarters, Department of the Army (DALO-SMP-S), Washington, DC 20310-1546. Commands and agencies may supplement this regulation according to applicable Service and Defense Logistics Agency directives.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commanding General, U.S. Army Materiel Command (AMCLG-SD), 5001 Eisenhower Avenue, Alexandria, VA 22333-0001.

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*This regulation supersedes AR 700-15, NAVSUPINST 4030.28B, AFR 71-6, MCO 4030.33B, and DLAR 4145.7, dated 25 October 1990 and AR 700-16, 20 January 1995.

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Contents (Listed by paragraph and page number)

Chapter 1
Introduction

1–1. Purpose

This regulation—

a. Establishes joint policies for all Department of Defense (DOD) components in developing uniform requirements for packaging of materiel acquired, stored, or shipped.

b. Provides uniform criteria for selecting and prescribing packaging at time of acquisition, storage, or shipment.

c. Establishes an interservice/agency committee, the Defense Packaging Policy Group (DPPG), that assures a uniform DOD approach to implementing packaging policies and packaging training programs.

d. Establishes lead service activities for testing and evaluation (T&E) of packaging materials and processes.

e. Provides detailed guidance on the organization and function of the DOD Container Design Retrieval System (CDRS).

1–2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1–3. Explanation of abbreviations and terms

a. Abbreviations and special terms used in this joint regulation are explained in the glossary.

b. The United States is a signatory to North Atlantic Treaty Organization (NATO) standardization agreement STANAG 4279, which ratifies Allied Administrative Publication (AAP) (short title: AAP-23). Under the provisions of STANAG 4279, AAP-23 is established as the primary packaging glossary for NATO. The United States carries out its obligation to implement STANAG 4279 by promulgating AAP-23 herewith notice. Other NATO related packaging terms and definitions are listed in DOD Joint Pub 1-02.

1–4. Responsibilities

a. Commanders or directors of DOD components will—

(1) Comply with policies, objectives, and guidelines in this joint regulation.

(2) Ensure compliance with the requirements of MIL-STD-2073-1 and MIL-STD-2073-2.

(3) Ensure project information is made available for exchange according to chapter 4 of this joint regulation.

(4) Comply with occupational safety and health program guidelines in paragraph 3-8.

b. Acquiring commanders and component heads will—

(1) Comply with policies, objectives, and guidelines in this joint regulation.

(2) Apply and select levels of protection according to paragraphs 3-2a through 3-2d and 3-2f.

c. Shipping activity heads will—

(1) Comply with policies, objectives, and guidelines in this joint regulation.

(2) Comply with paragraphs 3-2a through 3-2c and 3-2e through 3-2f when applying and selecting levels of protection.

(3) Protect retrograde and returned materiel per paragraph 3-7.

Chapter 2
Packaging Requirements, Specifications, and Levels of Protection

2–1. Requirements and specifications

a. Materiel will be packaged to prevent damage and deterioration and to provide for efficient and economical handling.

b. Commercial packaging will be used when such packaging is cost effective (DOD 4140.1-R). Use of commercial packaging should be determined before a contract is awarded or within the life cycle of the contract when substantial savings to the Government may result and adequate protection is provided by the commercial packaging. These decisions will be made by the packaging office at the buying activity.

c. Requirements for packaging will be developed for all DOD items to meet conditions described in this joint regulation.

(1) The requirements of MIL-STD-2073-1 and MIL-STD-2073-2 will be used by all DOD components in the development, documentation, dissemination, and acquisition of packaging data.

(2) Packaging requirements will be documented uniformly as directed under the DOD Standardization Program. Packaging specifications will be reviewed to validate cost effectiveness, eliminate redundancy, and incorporate changes. DOD components will provide necessary resources for timely standardization.

(3) Packaging data will be developed by the military services to support materiel systems through utilization of the Integrated Logistics Support (ILS) Program. MIL-STD-2073-1 and MIL-STD-2073-2 requirements will be used as specified in supporting ILS documents.

d. DOD packaging will be designed to comply with minimum weight and cube requirements prescribed in AR 70-44.

e. A DOD project information exchange system, with retrieval capability, will be maintained among packaging activities engaged in research, design, development, testing, and evaluation of packaging materials. This system will ensure the exchange and availability of information on proposed, in-process, and completed packaging projects. Details for accomplishment of this effort are in chapter 4.

f. Specifications will include the commodity and its usage.

g. Requirements for packaging in contracts will be detailed, cost effective, and reflect the approved levels of protection. Each DOD component will develop procedures to measure and document packaging savings and cost avoidance actions.

h. DOD standardization documents prescribing packaging requirements will be coordinated with a representative cross section of the private sector.

i. Packaging required to maintain the item from the time of acquisition throughout its anticipated life-cycle will be provided at the time of acquisition. This protection may be obtained from the prime contractor, subcontractor, manufacturer, or a packaging contractor. A Government facility will be used only—

(1) After the facility commander approves the request.

(2) When it is established as cost beneficial.

(3) When available commercial sources cannot or will not provide the service within the required timeframe.

j. When logistic requirements are revised, packaging prescriptions will be reviewed to determine compatibility with the new requirements.

k. Materiel packaged at a level lower than that required for a particular shipment or storage will be repackaged to upgrade it to the appropriate level.

l. Unitized loads will be used when the items or packs being shipped are compatible and unitization results in overall economy, or when requested by the requisitioning activity. If requested by the requisitioning activity, items must be compatible before unitization is applied. The requirement for unitization will be specified in acquisition actions when quantities permit and overall system economies will result.

m. Automated packaging equipment will be used within DOD facilities to increase productivity and reduce operating costs. DOD activities will keep abreast of current industry packaging technology to maintain a viable modern packaging program.

n. DOD activities will encourage vendors to submit new/advanced packaging methods, procedures, equipment, and materials for testing and approval per chapter 7.

o. Standard sized modular units, intermediate, and exterior packs will be compatible with established pallet, containerization, and air cargo transport system sizes approved by the International Organization for Standardization (ISO) and the American National Standards Institute (ANSI). The concepts of "minimum weight and cube packs" and "packaging designed to fit the item" will be used.

p. This joint regulation will not be construed as authorizing any compromise with established safety standards when selecting levels of protection for ammunition, explosives, or other hazardous

materials (HAZMAT). The applicable Federal, military, and international regulations for the mode of transportation must be followed at all times.

q. Hazardous cargo is regulated by Title 49, Code of Federal Regulations (49 CFR) 100-199 for geographical North America shipments; International Maritime Organization (IMO), International Maritime Dangerous Goods (IMDG) Code for international vessel shipments; International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) for international and domestic commercial air shipments; and AFR 71-4/TM 38-250/ NAVSUPPUB 505/MCO P4030.19/DLAM 4145.3 for military air shipments. Transportation through the Defense Transportation System is covered in DOD 45OO.32-R. Hazardous cargo shipments must be packaged and marked to meet the requirements of these documents (as governed by the modes of transportation selected).

r. Design and function data on all specialized reusable containers will be furnished according to MIL-STD-1510. Details for accomplishment of this effort are in chapter 6.

s. Packaging required to protect electrostatic discharge (ESD) sensitive items against damage and deterioration from the time of acquisition to anticipated use will be provided at the time of acquisition. MIL-STD-1686 and MIL-HDBK-263 will be used as guidelines in the identification, packaging, handling, and storing of ESD items.

t. Consideration will be given to the use of noncombustible or fire retardant packaging materials to protect supply items destined for stowage aboard Navy ships, and for bulk packaging materials in stowage, per NAVSUPINST 4030.47.

u. Consideration will be given to the use of nonplastic packaging materials to protect supply items destined for stowage aboard Navy ships, and for bulk packaging materials, per NAVSUPINST 4030.54.

2–2. Levels of protection

a. The following are levels of protection for preservation and packing (P&P):

(1) *Levels of preservation.*

(a) Level A. Preservation designed to protect an item of supply during shipment, handling, storage, and distribution to consignees worldwide.

(b) Level B. Preservation designed to the unique requirements of selected commodities for which the deprocessing demands of level A preservation (would) bear significantly on the operational readiness of the item (e.g., vehicles and weapons).

(c) *Level C.* Minimal preservation designed to protect an item for limited storage and immediate use.

(2) *Levels of packing.*

(a) Level A. Maximum protection to meet the most severe worldwide shipment, handling, and storage conditions. A level A pack must, in tandem with the applied preservation, be capable of protecting materiel from the effects of direct exposure to extremes of climate, terrain, and operational and transportation environments. Examples of situations that indicate a need for use of a level A pack are: mobilization, strategic and theater deployment and employment, open storage, and deck loading. Examples of containers used for level A packing requirements include but are not limited to overseas type wood boxes, and plastic and metal reusable containers.

(b) *Level B.* Intermediate protection to meet moderate worldwide shipment, handling, and storage conditions. A level B pack must, in tandem with the applied preservation, be capable of protecting materiel not directly exposed to extremes of climate, terrain, and operational and transportation environments. Examples of situations that indicate a need for use of a level B pack are: security assistance (e.g., Foreign Military Sales (FMS)) and containerized overseas shipments. Examples of containers used for level B packing requirements include, but are not limited to, domestic wood crates, weather-resistant fiberboard containers, fast-pack containers, weather-resistant fiber drums, and weather-resistant paper and multiwall shipping sacks.

(c) *Level C.* Minimum protection to meet conditions of a known favorable logistics path. A level C pack will, in tandem with the applied preservation, protect materiel against effects sustainable within continental United States (CONUS) transportation system or outside continental United States (OCONUS) for air shipments of immediate use items. Examples of situations that indicate use of a level C pack are: CONUS and OCONUS shipments to fill high priority requisitions, shipments of mission stock to CONUS inventory, and small parcel shipments. Examples of containers used for level C packing requirements include, but are not limited to, domestic fiberboard boxes, domestic multiwall shipping sacks, and small parcel mailing envelopes.

b. Provisions of this publication are the subject of STANAG 4280. When amendment, revision, or cancellation of this publication is proposed that will affect or violate the agreement concerned, the preparing activity or responsible agency will advise the U.S. representative to NATO to ensure that the U.S. position is revised accordingly.

Chapter 3
Procedures for Determining Packaging Requirements

3–1. Determination of packaging requirements

a. The nature of an item determines the type and extent of protection needed to prevent deterioration of items in storage. This determination essentially involves selection of one of the five basic methods of preservation. Shipping and handling as well as length of storage considerations dictate the type of materials selected for P&P.

(1) Technical and performance requirements related to the expected hazards are necessary to ensure that adequate protection has been provided. Most military supplies encounter a wide range of conditions too broad to achieve precise engineered performance. Therefore, levels of protection are defined to correlate to these widely divergent conditions.

(2) To provide adequate and economical protection to meet these broad conditions, technical instructions will be developed for meeting each level.

(a) In some cases, three levels of protection will not always be needed.

(b) Levels of protection are described in terms of logistical conditions. They must be translated into specific technical or design requirements for the conditions to which P&P will be exposed.

b. The logistics support analysis (LSA) will include—

(1) Reviewing packaging requirements before and during engineering and manufacturing development.

(2) Evaluating cost effectiveness throughout the initial provisioning and resupply processes.

c. Commercial packaging will be acceptable for any level of protection when the technical design of the package meets all conditions of the level of protection specified and when it is more cost effective.

(1) Commercial packaging must provide the same level of protection against physical and environmental damage as military packaging and will be marked per MIL-STD-129.

(2) Use of commercial packaging is contingent upon no increase in packaging charges, size, weight, or delay in delivery. In general—

(a) Bulk practices used in interplant and intraplant movements or shipments to jobbers are not acceptable unless they are the usual trade practices for individual commodities such as coal, bulk petroleum, and fresh produce.

(b) The packaging details will be incorporated into standardization and acquisition documents when applicable. Specific standards of industries will be used when appropriate.

3–2. Selection of levels of protection

Acquiring commands and components and storage activities will develop procedures for selecting and applying packaging protection.

a. Table 3-1 provides general guidelines for selection of levels of protection. Definitions for levels of preservation and packing are in paragraph 2-2.

b. Mobilization, reserve, and contingency stocks will be packaged level A/A for immediate issue worldwide into all types of climatic conditions and modes of transportation.

c. In selecting packaging in support of security assistance programs, use the guidance from the service/agency directives that apply to these programs. If none is specified, packaging will be A/B as above.

d. Acquiring commands and components will—

(1) Maintain and apply realistic experience data to determine level of protection requirements for materiel scheduled for delivery to storage activities. This will reduce upgrading/repackaging work loads prior to storage and/or redistribution.

(2) Order the required packaging at time of acquisition as part of the same contract or by separate contract. The procuring contracting officer (PCO) determines the most beneficial way.

(3) Include packaging requirements in appropriate acquisition documents. These requirements will be stated clearly and in enough detail to acquire the required packaging of supplies and equipment.

(4) Select levels of protection based on anticipated shipping, handling, transportation and environmental conditions, and duration of required protection or storage.

(5) Advise storage activities of the packaging needed for mobilization or contingency reserve stocks.

(6) Screen excess reusable containers to determine if they should be returned to the distribution point. They also may be transferred to a Defense Reutilization and Marketing Office (DRMO) as excess or unserviceable assets needing repair or replacement. These long life containers that are excess to the integrated materiel manager's needs will be reported to CDRS as specified in paragraph 6-3g.

(7) Establish procedures for evaluating specialized and general reusable containers considering performance, use, trip life, and life cycle cost. Reusable containers are either specialized or general purpose. Depending on the durability of the container, both specialized and general purpose containers fall into two categories, long life and short life.

e. Procedures for selecting and applying packaging protection will be developed by shipping activities as follows:

(1) Ensure that packaging complies with contract requirements for materiel accepted at destination (first delivery point).

(2) Provide the required packaging for materiel being shipped, transshipped, or placed in storage.

(3) Establish internal controls to ensure that, during the selection of materiel for shipment, consideration is given to previously packaged stock that meets the level of protection required for the shipment. Selection of the appropriate P&P, when available, will eliminate unnecessary upgrading, or furnishing of levels which exceed anticipated requirements.

(4) Maintain mobilization or contingency reserve stocks ready-for-issue.

(5) Provide for and ensure availability of necessary materials and resources for packaging of rotational stocks upon demand to support mobilization or contingency operations.

(6) Establish internal procedures to ensure maximum use and reuse of general purpose reusable containers.

(7) Report reusable containers for which no requirement exists to integrated materiel or inventory managers, according to individual Service or agency procedures.

f. When a combination of conditions used for determining the level of protection falls within more than one level, the highest level will be applied. If packaging requirements at the requested level are not established, the next higher level will be applied or the lead service packaging office will be contacted for instructions.

Table 3–1
General guidelines for selection of levels of protection

Distribution Pattern	Level of Preservation	Level of Pack
Security assistance/foreign military sales/grant aid (unless otherwise directed by country)	A	B
War readiness/reserve	A	A
War readiness/reserve (≤25 lbs and ≤1 cubic ft)	A	B
Delivery to wholesale depot stock	A	C
Immediate use (CONUS and overseas) (NMCS/999/IPG I and II)	C	C
Overseas (surface transportation and/or outdoor storage)	A	A
(Air transportation and covered storage)	A	B

3–3. Marding

The marking for shipment and storage will be according to MIL-STD-129, DOD 4500.32-R, and other applicable standards, specifications, and authorized instructions. When appropriate, detailed marking instructions will be included in the contract or order.

3–4. Use of options

When standards, specifications, purchase descriptions, packaging data sheets or cards, special packaging instructions (SPI), drawings, or other authorized instructions contain options for selecting packaging methods, materials, or procedures, the option that provides protection at the lowest overall cost will be selected. The choice is the prerogative of the managing DOD packaging activity.

3–5. Coordination of requirements

Packaging data for repair parts will be compatible with maintenance, packaging, handling, storage, transportation, supply, and acquisition needs. The requirements will include pack quantities and intermediate containers, shipping containers, and unit load quantities in agreement with issue, handling, and shipping requirements, as appropriate.

3–6. Establishing pack quantities

The development and ordering of quantities to be placed in the unit, intermediate, and exterior pack require coordination with the managing packaging activity. These quantities will be established after evaluating all known factors, including—

a. Maintenance concept for the item being supported.
b. Basis for issue such as allowance and load list.
c. Life expectancy such as shelf-life and mortality rate.
d. Chemical and physical characteristics.
e. Construction and functional requirements.
f. Fragility.
g. Unit cost.
h. Ease of accountability and inventory.
i. Commercial practice quantity for like items.
j. Military standards.
k. Applicable regulations.

3–7. Protecting retrograde cargo or returned materiel

Retrograde materiel will be protected consistent with the provisions of the commodity grouping. The materiel will be protected as follows:

a. To prevent deterioration and damage, consumable, serviceable (excess) returns for credit will be returned in the original vendor or

depot unit pack; or in a unit pack that is the equivalent to the original unit pack.

(1) Ensure item serviceability/condition warrants return. If not warranted, dispose of locally, as appropriate, through servicing DRMO.

(2) Failure to follow the above procedures for serviceable returns could result in the loss of credit. To minimize the possibility of credit loss, it is imperative that the item not be removed from the original unit pack until ready for use.

b. Serviceable and unserviceable reparable materiel will be packaged to maintain the integrity of the degree of serviceability of the materiel being returned.

c. Depot level reparables (DLR), serviceable and unserviceable, whose packaging prescription dictates the use of reusable containers, will be afforded that protection throughout their life cycle.

d. All items will be identified with the national stock number (NSN), nomenclature, and quantity. Materiel condition tags or labels and markings will be applied as required by MIL-STD-129 and the DOD component. The shipper will be responsible for adequate packaging of materiel returns.

e. HAZMAT returns will be packaged according to applicable Federal, military, and international regulations for the mode of transportation being used as identified in paragraph 2-1q. Materiel will be marked according to the applicable regulations and MIL-STD-129. Material safety data sheets (MSDS) will be returned with HAZMAT items.

3–8. Occupational safety and health

a. There will be no compromise with the provisions of the Occupational Safety and Health Act and the Occupational Safety and Health Program for Federal employees who package materiel.

b. An effective and comprehensive occupational safety and health program will be maintained to—

(1) Provide safe and healthful places for packaging.

(2) Acquire, maintain, and require the use of personal protective equipment and engineering controls for packaging operations to eliminate or control safety and health hazards.

(3) Provide an adequate record system for recording accidents and illnesses for proper evaluation and corrective action.

(4) Ensure a Safety Management Information Program and ensure employee and worksite information is included in the Army Occupational Health Management Information System.

(5) Periodically inspect work areas to ensure compliance with safety and occupational health requirements.

(6) Include plans and procedures for evaluating the effectiveness of the safety and occupational health programs.

(7) Provide regular employee training concerning the potential occupational safety and health hazards of their worksites.

3–9. Ecology

a. Pollution of the environment due to packaging operations at DOD activities will be controlled and held to a minimum. Environmental quality standards prescribed by Federal, State, and local authorities will be used in determining measures to control pollution. During design and selection of packaging data systems and materials, consideration will be given to reusability, degradability, and recycling to promote environmental quality and the conservation of resources.

b. Environmental pollution preventive measures will be incorporated into applicable standards, specifications, and instructions covering materials and processes used in packaging. The use of plastic packaging materials for the protection of supplies forwarded to Navy ships will be kept to an absolute minimum. This will enhance efforts to prevent the discharge of plastic packaging materials into the ocean in compliance with the International Convention for the Prevention of Pollution from Ships, and to support the Plastics Removal in Marine Environment (PRIME) Program.

c. Before introducing a new material for use, consideration will be given to environmental consequences.

3–10. Reporting discrepancies

DOD activities will use SF Form 364 (Report of Discrepancy (ROD)), or electronic media, including all pertinent information, to report shipping-type (item) and packaging discrepancies attributable to the shipper (including contractors/manufacturers or vendors). (See DLAR 4140.55/AR 735-11-2/SECNAVINST 4355.18/AFR 400-54.)

Chapter 4
Project Information Exchange

4–1. Project requirements

a. Packaging project information will be maintained and exchanged as outlined in this regulation.

b. For the purpose of packaging project information exchange, a project is any planned work load involving 160 or more man-hours (including all support functions). This entails research, development, testing, or evaluation that may result in new or improved packaging concepts, methods, or procedures. It includes research, development, testing, or evaluation of new materials. Excluded are internal procedures, suggestions, briefings, and presentations.

4–2. Reporting requirements

a. Bibliographic information on all packaging projects will be submitted to the Director, Defense Logistics Studies Information Exchange (DLSIE), U.S. Army Logistics Management College, Fort Lee, VA 23801-0043, DSN 687-4255 or (804) 734-4255.

b. Reporting requirements apply to project initiations, projects in process, and project completion as outlined below. (An exception is test reports documenting container compliance with United Nations (UN) performance oriented packaging (POP) requirements for HAZMAT.)

(1) *Project initiation.*

(a) Packaging activities will request bibliographic information on proposed projects from DLSIE at least 14 days before initiating the project to prevent duplicate efforts.

(b) DLSIE will provide the requesting activity a bibliography of completed or in-process packaging projects.

(c) The packaging activity will screen the bibliography and request that DLSIE provide copies of any existing projects that are related to the project being initiated. Projects will be requested by their assigned logistics document (LD) identifier number.

(d) DLSIE will provide the packaging activity a record of applicable projects.

(e) Bibliographic information on the project being initiated will then be submitted to DLSIE.

(2) *Project in process.*

(a) Updated bibliographic information will be submitted to DLSIE on any project that has significant changes in information (i.e., change in scope). This information will be submitted within 10 working days after the change.

(b) If no updated information has been submitted within one year of the preceding submission, bibliographic information on the project will be reviewed, updated, and resubmitted.

(3) *Project completion.*

(a) Complete bibliographic information will be submitted to DLSIE within 10 working days after completion of the project.

(b) Two copies of each project report will be submitted to DLSIE upon publication. This includes documentation related to completion of the project, including letter reports. The DLSIE study descriptor "packaging" will be used on all project reports submitted in addition to any other applicable descriptors.

(c) DLSIE will include the project in any bibliography requested by a DOD component after receipt of the completed project report.

c. Completed packaging project reports will be submitted to the Director, Defense Technical Information Center (DTIC), ATTN: DTIC-ODR, Suit 0944, 8725 John J. Kingman Road, Fort Belvoir, VA 22060-6218, DSN 427-8053 or (703) 767-8053, for inclusion in

their files using SF Form 298 (Report Documentation Page). Reports of a classified nature are exempt from this requirement.

d. POP test reports for HAZMAT requirements are as follows:

(1) The DOD packaging test activity will submit one copy of test reports to DTIC, formatted according to DI-PACK-81059, the test report format for POP testing of HAZMAT per UN requirements. The test report will be under the cover of the SF Form 298. It will be identified on the form by a test report number prefixed by the letters DOD/POPHM. A copy will also be sent to the DLA HAZMAT central manager at the DLA Operations Support Office, ATTN: DOSO-DH, 8000 Jefferson Davis Highway, Richmond, VA 23297-5083, DSN 695-5445 or (803) 279-5445 for inclusion in the DOD POP data base. This requirement includes POP tests for ammunition and explosives.

(2) DTIC user-access codes will be established within each Service/Agency to access test data as appropriate.

Chapter 5
Defense Packaging Policy Group (DPPG)

5–1. DPPG objectives

DPPG is a permanent forum established to develop and recommend changes to policy, guidance, and standardization of packaging throughout the Military Services and the Defense Logistics Agency (DLA). Special areas of interest include—

a. New and/or improved packaging equipment, methods, and concepts.

b. Engineering and data development.

c. Training.

d. Increased productivity and overall cost improvement and effectiveness.

e. International and domestic packaging and transportation requirements/changes.

f. Environmental issues/mandates.

g. Implementation and transition for Defense Management Review Decisions, Corporate Information Management System/Interim System, and factors relative to packaging/system support.

h. Military packaging simplification.

5–2. DDPG Responsibilities

a. The chairperson of the DPPG is responsible for operations per paragraphs 5-3 and 5-4 and for initiating issues and resolving differences. Specific membership is recommended by the chairperson, using selection criteria developed by the DPPG, and approved by the Deputy Under Secretary of Defense (Logistics) (DUSD(L)). In the absence of the chairperson, the Executive Secretary (ES) will assume this duty. Advisory members will participate in every capacity as a primary member, with the exception of voting (see para 5-4f) and rotating of the ES duties. The DPPG is composed of packaging managers from the following locations:

(1) Office of the Assistant Deputy Under Secretary of Defense (OADUSD), ATTN: OADUSD-L/MDM, 3500 Defense Pentagon, Washington, DC 20301-8000.

(2) Army Materiel Command Packaging, Storage and Containerization Center (LOGSA PSCC), ATTN: AMXLS-TP-P (Chief) 11 Hap Arnold Boulevard, Tobyhanna, PA 18466-5097.

(3) Naval Supply Systems Command, (NAVSUPSYSCOM), ATTN: PO 2050, 5450 Carlisle Pike, Mechanicsburg, PA 17055-0791.

(4) Air Force Materiel Command (AFMC), ATTN: AFMC-LSO/LOPP (Policy), 2515 Thurlow Street, Wright Patterson Air Force Base, OH 45433-5000.

(5) Deputy Chief of Staff for Installation and Logistics (LPP-2), HQ USMC, Washington, DC 20380-0001 (Primary Member).

(6) HQ DLA, ATTN: DLA-MMLSD), 8725 John J. Kingman Road, Suite 2533, Fort Belvoir, VA 22060-6221.

(7) Dean, School of Military Packaging Technology (SMPT), ATSZ-MP, Aberdeen Proving Ground, MD 21005-5001 (Advisory Member).

(8) Defense Contract Management Command (DCMC), ATTN: DLA-MMLSD, 8725 John J. Kingman Road, Suite 2533, Fort Belvoir, VA 22060-6221.

b. DPPG members will provide/exchange information and develop, coordinate, and recommend packaging policy to the DASD (Logistics); work together to detect and recommend solutions to packaging policy problems; and promote the standardization of packaging within DOD. Consideration is given to individual service/agency unique requirements.

c. The DPPG will provide a forum to advise SMPT on the development and improvement of DOD packaging and training, and ensure that SMPT programs respond to DOD needs. Members assists the SMPT staff in developing new packaging programs of instruction, correct deficiencies identified in course contents, and pursue joint resolution of packaging training concerns/problems. Recommendations by members for the establishment of new courses of instruction to meet individual or collective Service needs will be forwarded to the Chairperson for approval by the DASD (Logistics).

d. DPPG will establish working groups as required to improve operational packaging techniques; study and resolve specific packaging issues common to the Services and DLA to avoid duplication of effort; and promote standardization.

5–3. DPPG functions

a. Organization. The DPPG is chaired by OASD and the primary members rotate as the ES every 2 years. The ES functions as the Chairperson in the absence of OASD. The order of rotation for the ES is as follows:

(1) Air Force.
(2) Army.
(3) Marine Corps.
(4) Navy.
(5) DLA.

b. Meetings. The DPPG meets semiannually or at the call of the Chairperson, who designates the dates and location of the meeting, and notifies the ES. The ES will notify DPPG membership/invite activities and, request proposed agenda topics at least 60 days before the meeting date.

c. Agenda. The members provide proposed agenda topics, with talking papers, to the ES and other members 30 days before the meeting. The ES distributes the final agenda at least 15 days prior to the meeting.

d. Minutes. The ES prepares the meeting minutes and submits them to the Chairperson within 30 days after each meeting. The ES also submits a DPPG coordinated report of accomplishments to the Chairperson for approval and distribution to the members/offices of primary responsibility (OPR) by 31 March of each year.

e. Travel funds. Travel funds are provided by participating organizations for their members to participate in the DPPG meetings.

f. Decision-making process. The DPPG is a decision-making group that recommends packaging policy to the DASD (Logistics). Policy recommendations are determined by consensus. When consensus of primary and advisory members cannot be reached, the issue is resolved by one vote per Service/Agency, with the majority opinion prevailing. Specific procedures are as follows:

(1) Discuss the issue in need of consensus (primary and advisory members).

(2) All members (primary and advisory) provide input and/or request more information.

(3) Discuss alternatives (primary and advisory members).

(4) Determine if consensus can be reached (all members can support the decision).

(5) If consensus cannot be reached, identify points of conflict and agreement, and attempt to negotiate a solution.

(6) If consensus still cannot be reached by all members (primary and advisory), a decision will be made by a majority vote of the primary members.

(7) Detailed rebuttals concerning majority approved issues may be made in writing to the Chairperson not later than 45 days after

publication of the meeting minutes, for timely review and decision. Rebuttals must be fully substantiated to support opposing positions.

g. Communication. Members (primary and advisory) may communicate directly with the OASD Chairperson.

h. Guests. Members are responsible for the invitation of their respective Service/Agency guests. In order to maintain the effectiveness of the Group, guests should be limited to those who can contribute significantly to the established agenda. Guest attendance is subject to approval by the Chairperson, or the ES in the absence of the Chairperson.

Chapter 6
DOD Container Design Retrieval System (CDRS)

6–1. CDRS concept

a. The CDRS is a centralized automated system for storing, retrieving, and analyzing designs and related test information of existing specialized shipping and storage containers. These design assets are checked for reuse in new programs. The CDRS management office (MO) has personnel, facilities, and authority to provide CDRS service to all DOD development or procurement activities. The CDRS MO is located at the Aeronautical Systems Division (ASD), Joint Tactical Systems Program Office (ASD/YJA), Eglin AFB, FL 32542-5000.

b. The CDRS is concerned primarily with the management of specialized containers. A specialized container is designed to support and protect its contents while in transportation, storage, and handling or to protect personnel from hazardous contents. Its design may also incorporate features which facilitate more effective transportation, storage, or handling. Other characteristics of these containers include—

(1) Energy-damping systems, temperature control systems, and humidity or pressure control capability.

(2) Engineering drawings that define materials, dimensions, form, fit, function, fabrication, or assembly.

(3) An original design effort or modification of an existing or standard container design.

(4) A long life equaling the life of the items it is designed to protect.

(5) Exterior materials made of metal, plastic, synthetics, or composite materials.

c. Specialized containers also include containers whose drawings are prepared in SPI format as in MIL-STD-2073-1 and MIL-STD-2073-2 and other packaging systems described by illustrations, sketches, figures, or drawings in specifications or technical orders. Containers described only by the use of section 5 of the end item procurement specifications, or narrative SPIs, are not included in this description.

6–2. CDRS objectives

a. A uniform means of identifying, recording, and retaining technical and management information will be provided on specialized containers.

b. An in-depth review of technical data will be provided on existing container designs and surplus assets to determine their reusability in new defense systems acquisitions or existing programs.

c. Specialized containers will be prevented from being disposed of as excess property before determining their possible use in new or existing programs.

d. Containers will be standardized among similar items and among the various DOD components.

e. Competitive use will be promoted and supported for DOD design, engineering, prototyping, and development capabilities. These capabilities will serve as a preferred source for container development or modification when existing container resources are not sufficient to satisfy technical, cost, or schedule requirements or to facilitate standardization and quality.

6–3. CDRS policy

a. Design data extracted from engineering drawings will be stored in the CDRS data base.

b. All DOD activities engaged in development or procurement of specialized containers will send a search request (using the format prescribed in MIL-STD-1510) to CDRS/MO before initiating a new design or production program. A search request should not be submitted for items that can be packaged to meet stated protection requirements in wood, plywood, fiberboard, or "fastpack" containers.

c. All DOD activities engaged in the design, development, and procurement of specialized packaging and containers for Army-developed ammunition managed by the Single Manager for Conventional Ammunition under the provisions of DODD 5160.65, or Army developed missile/guided projectiles will coordinate with the Army's Project Manager (PM) for Ammunition Logistics (AMMOLOG), AMCPM-AL, Dover, NJ 07801, before initiating any new design, development, product improvement, or production program for such specialized packaging and containers. This coordination should take place after the CDRS search described in b above.

d. DOD activities that acquire a new specialized container design will forward to CDRS/MO a design data input (using the format prescribed in MIL-STD-1510).

e. Designs or surplus assets identified by CDRS/MO that meet the technical packaging requirements specified by the development activity will be used whenever it is cost-effective to do so.

f. Cost savings achieved through the use of CDRS, for the reuse of existing containers or container designs, will be documented by the development or procurement activity and a copy of the documentation sent to CDRS/MO not later than 30 days after validation.

g. All DOD integrated materiel managers must contact CDRS/MO before disposing of excess or obsolete specialized containers. CDRS/MO will evaluate and determine their potential for use in other programs.

h. CDRS/MO will remain alert for potential new container programs whose development by organic DOD engineering and procurement activities offers advantages in terms of standardization, quality, cost, or program schedule effectiveness.

i. CDRS will ensure that a viable organic DOD container design and development capability exists.

6–4. CDRS administration

a. The Air Force is responsible for providing the resources and instructions necessary to ensure effective operation of CDRS.

(1) The Air Force Aeronautical Systems Division (ASD/YJA) executes all functions of CDRS/MO and operates the CDRS to provide a DOD-wide container documentation retrieval and container development capability.

(2) The CDRS/MO maintains a computerized data record of existing specialized containers, corresponding design drawings, and information. These are used for technical analysis and container reuse applications, thus reducing acquisition costs and increasing the options available to the procurement activity. Additionally, it acts as a central focal point for DOD container information.

b. Development and packaging activities will ensure that—

(1) CDRS use is part of the acquisition management process and its use is reflected in appropriate program management documents.

(2) MIL-STD-1510 requirements are included in appropriate contracts.

(3) CDRS search requests are submitted early enough to permit adequate search and evaluation by the CDRS/MO. The data item description (DID) pertaining to CDRS search request is DI-PACK-80683.

(4) Savings that are attained as a result of CDRS are documented and the CDRS/MO is informed (para 6-3f).

c. DOD activities having responsibility for maintaining specialized container drawings and related technical data must send a copy of the complete drawing package to CDRS/MO for inclusion in the

CDRS database file. Test reports completed per ANSI 239.18 need not be included in the data package unless specifically requested. The DID pertaining to CDRS data input is DI-PACK-80684. This data must be sent to CDRS, ASD/YJA, Bldg 614, Eglin AFB, FL 32542-5000.

Chapter 7
Lead Activities for Packaging Testing

7–1. Objectives

Lead services for testing and evaluating packaging materials and processes are established to attain the following objectives:

a. Eliminate duplication of effort in testing and evaluating packaging materials and processes.

b. Provide package testing focal points within the services and DLA for other Government agencies and industry.

c. Improve skills and increase productivity through specialization.

d. Standardize test equipment to the optimum extent.

7–2. Lead Service designations

Lead activities are shown below along with their designated areas of responsibility for testing and evaluating materials and processes:

a. The U.S. Army Natick Research, Development, and Engineering Center (NRDEC), SATNC-WTS, Natick, Massachusetts 01760-5018, is assigned as lead activity for personal support materiel, i.e., clothing, textiles, and subsistence.

b. The U.S. Air Force Packaging Evaluation Activity (AFPEA), HQ AFMC/LGTP, 5215 Thurlow Street, Wright-Patterson AFB, Ohio 45433-5540, is assigned as lead activity for materials and processes in table 7-1.

c. The U.S. Army Materiel Command, LOGSA Packaging, Storage, and Containerization Center (AMCLOGSA PSCC,11 Midway Road, Tobyhanna, Pennsylvania 18466-5097, is assigned as the lead activity for the materials and processes in table 7-2.

d. The U.S. Army Defense Ammunition Center and School (USADACS) SMCAC-DEV, Savanna, Illinois 61074-9639, is designated as the lead activity for processes relating to automatic banding systems.

e. The Naval Packaging, Handling, Storage, and Transportability Center, U.S. Naval Weapons Station Earle, Code 5014, Colts Neck, New Jersey 07722-5023, is designated as the lead activity for strapping materials (metal and nonmetal].

f. The Naval Air Warfare Center, Aircraft Division, Code 60611, Warminster, Pennsylvania 18974-5000, is the lead activity for ESD sensitive packaging materials.

g. The Naval Weapons Station, WQEC-Code 30, 10 Delta Street, Concord, California 94520, is the lead activity for ESD test and evaluation criteria, equipment, and methodologies.

h. The Naval Surface Warfare Center, Carderoc Division, Annapolis Detachment, 1661 Bayhead Road, Annapolis, Maryland 21401, is lead activity for fire retardant packaging materials.

i. Under the lead activity concept for testing and evaluating packaging materials and processes, the following categories of material are excluded:

(1) Materials and processes related to specific end items or weapons systems or subsystems.

(2) Testing and evaluation of packaging equipment related to specific operational requirements.

(3) Compliance testing of contractor products unless specifically justified and not covered by contract requirements.

(4) Medical items regulated by the U.S. Food and Drug Administration.

Table 7–1
Lead activity for materials and processes

Materials	Processes
Containers, metal and plastic	Foam-in-place Systems
Shock indicators crates	Fastpack Container Systems
Cushioning materials	Cushioning Systems
Humidity indicators	Strippable Coating Systems
Foam (prefoamed or foam-in-place)	Magnetic Shielding
Pallets, metal	Computer-Aided Design System and Finite Element Analysis

Table 7–2
AMCLOGSA PSCC activity for the materials and processes

Materials	Processes
Adhesives	Unitization Systems
Preservation Materials	MIL-STD-147
Barrier Materials	Stretch Wrap Systems
Boxes, wood	Shrink Wrap Systems
Boxes and sheet stock, fiberboard	Marking and Labeling Systems
Pallets, other than metal tapes	Vacuum Formed Thermoplastic Systems
Marking and Labeling Materials Desiccant Materials	Cold-seal Packaging Systems
Tags, Document Protectors,	Dehumidification Systems
Packing list	Plastic Wrap Systems
Bags and Sacks - Boxes, wirebound	Plastic Bag/Package Forming Systems

7–3. Administration

a. Requesting activities.

(1) Activities desiring to submit materials or processes for testing and evaluation must specify in their requests the tests to be conducted. The number of samples for testing are determined by the lead service activity based on the requirements of the test program. If field testing is required, the requesting service is responsible for making the necessary arrangements. If multi-Service field tests are required, the requesting activity works through the other Services' primary assigned activities. All pertinent data from commercial sources or previous evaluation by Government agencies or contractors must be furnished.

(2) Activities will submit additions to MIL-STD-2073 codes for materials tested and approved for use to the Naval Air Warfare Center, Aircraft Division, Lakehurst, Code SR32, Lakehurst, NJ 08733. Efforts should be made to add new materials to existing codes rather than establishing new ones.

b. Testing activities. Activities will query the preparing activity of the applicable specification to determine if testing has been previously accomplished. All testing must be done according to appropriate testing methods such as FED-STD-101 or acceptable industry standards. The testing activity submits a final report to the requesting activity and to the preparing activity of the applicable specification.

c. Preparing activities. Any testing accomplished by the preparing activity in conjunction with specification maintenance must be coordinated with the lead activity, and a copy of all test results must be furnished to that activity.

d. DOD components. DOD components will notify DLSIE of any planned or in-process study or evaluation per paragraph 4-2. Completed projects will be reported to DTIC.

Appendix A
References

Section I
Required Publications
This section contains no entries.

Section II
Related Publications
A related publication is merely a source of additional information. The user does not have to read it to understand this publication.

AAP-23
NATO Glossary of Packaging Terms and Definitions (English and French)

AFR 71-4/TM 38-250/NAVSUPPUB 505/MCO P4030.19E/ DLAM 4145.3
Preparing Hazardous Materials for Military Air Shipments

ANSI 239.18
Format Requirements for Scientific and Technical Reports Prepared By and For the Department of Defense

AR 70-44/OPNAVINST 4600.22/AFR 80-18/MCO P4610.14C/ DLAR 4500.25
Department of Defense Engineering for Transportability

Code of Federal Regulations Title 49
Transportation

DI-PACK-80683
Container Design Retrieval System Search Request

DI-PACK-80684
Container Design Retrieval System Data Input

DI-PACK-81059
Hazardous Material Performance Oriented Packaging (POP) Test Format

DLAR 4140.55/AR 735-11-2/SECNAVINST 4355.18/AFR 400-54
Reporting of Item and Packaging Discrepancies

DOD 4500.32-R
Military Standard Transportation and Movement Procedures

DODD 5160.65
Single Manager for Conventional Ammunition: Implementing Joint Conventional Ammunition Policies and Procedures

DOD Joint Pub 1-02
DOD Dictionary of Military and Associated Terms

FED-STD-101
Test Procedures for Packaging Materials

MIL-HDBK-263
Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices (Metric))

MIL-STD-129
Marking for Shipment and Storage

MIL-STD-147
Palletized Unit Loads

MIL-STD-1510
Container Design Retrieval System, Procedures for Use of

MIL-STD-1686
Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices (Metric)

MIL-STD-2073-1
DOD Materiel Procedures for Development and Application of Packaging Requirements

MIL-STD-2073-2
Packaging Requirement Codes

NAVSUPINST 4030.47
Reduction of Combustible Packaging Materials Aboard Navy Ships

NAVSUPINST 4030.54
Reduction of Plastic Packaging Materials Aboard Navy Ships

STANAG 4279
NATO Glossary of Packaging Terms and Definitions - AAP 23

STANAG 4280
NATO Levels of Requirements for Packaging

Section III
Prescribed Forms
This section contains no entries.

Section IV
Referenced Forms

SF Form 298
Report Documentation Page

SF Form 364
Report of Discrepancy (ROD)

Glossary

Section I
Abbreviations

AAP
allied administrative publication

ANSI
American National Standards Institute

ASD
Aeronautical Systems Division

CDRS
Container Design Retrieval System

CONEX
container express

CONUS
continental United States

DASD
Deputy Assistant Secretary of Defense

DID
data item description

DLR
depot level reparable

DLSIE
Defense Logistics Studies Information Exchange

DOD
Department of Defense

DPPG
Defense Packaging Policy Group

DRMO
Defense Reutilization and Marketing Office

DTIC
Defense Technical Information Center

ES
Executive Secretary

ESD
electrostatic discharge

HAZMAT
hazardous materials

IATA
International Air Transport Association

ICAO
International Civil Aviation Organization

ILS
integrated logistics support

IMDG
International Maritime Dangerous Goods

IMO
International Maritime Organization

ISO
International Organization for Standardization

LD
logistics document

LSA
logistics support analysis

MILVAN
military-owned demountable container

MO
management office

MSDS
material safety data sheet

NATO
North Atlantic Treaty Organization

NSN
national stock number

OCONUS
outside continental United States

OPR
office of primary responsibility

P&P
preservation & packing

PCO
procuring contracting officer

POP
performance oriented packaging

PRIME
Plastics Removal in Marine Environment

RO/RO
roll on/roll off

SEAVAN
commercial or Government-owned (or leased) container

SMPT
School of Military Packaging Technology

SPI
special packaging instruction

STANAG
standardization agreement

T&E
testing & evaluation

UN
United Nations

Section II
Terms

Commercial packaging
The packaging methods and materials used normally by the commercial supplier.

Containerization
The use of transport containers (i.e., CONEX, MILVAN, SEAVAN, RO/RO trailers) to unitize cargo for transportation, supply, and storage. Containerization aids carriage of goods by one or more modes of transportation without the need for intermediate handling of the contents. Containerization incorporates supply, security, packaging, storage, and transportation into the distribution system from source to user.

Defense Packaging Policy Group
An OASD/military services/DLA group established as a permanent forum to provide policy, guidance, and standardization of packaging throughout the military services and DLA.

Exterior pack
A container, bundle, or assembly that is sufficient by design and construction to protect unit and intermediate packs and contents during shipment and storage. This can be a unit pack or a container with any combination of unit or intermediate packs.

General purpose reusable container
A container designed to maintain a number of items within certain limits of size, weight, and fragility. A general purpose reusable container can be reused a number of times and may be identified by military or Federal specifications.

Integrated logistics support
A process that unites the total logistic work effort required to acquire and field supportable and sustainable materiel systems.

Intermediate pack
A wrap, box, or bundle that contains two or more unit packs of identical items.

Marking
Application of numbers, letters, labels, tags, symbols, or colors for handling of identification during shipment and storage.

Military packaging
The methods and materials described in Federal or military specifications, standards, drawings, or other authorized documents or systems designed to prevent damage or deterioration during distribution or storage of materiel.

Packaging
An all-encompassing term describing the methods and materials used to protect materiel from deterioration or damage. Packaging includes the processes of preservation, cleaning, drying, packing, marking, and unitization.

Packing
The assembling of materiel into an exterior pack, consisting of a container, bundle, or assembly, with the necessary blocking, bracing, cushioning, weatherproofing, reinforcement, and marking.

Performance oriented packaging
A type of packaging based on the ability of packaging to perform to a specified level of integrity when subjected to performance tests.

Plastics Removal in Marine Environment
The removal of plastic packaging materials from supply items forwarded to Navy ships for the purpose of preventing the discharge of plastics into the ocean.

Preservation
The processes and procedures used to protect materiel against corrosion, deterioration, and physical damage during shipment, handling, and storage. As applicable, preservation includes cleaning, drying, application of preservative, wrapping, cushioning, containers (unit and intermediate) and complete identification markings up to but not including the exterior shipping container.

Reusable container
A shipping and storage container that is designed for reuse without impairment of its protective function. A shipping and storage container that can be repaired, refitted, or both, to prolong its life or to adapt it for shipment of items other than that for which it was originally intended.

Specialized reusable container
A container designed to maintain a specific item, or many items, while being transported, stored, or handled. A specialized reusable container has an expected service life equal to or greater than that of the item it is designed to protect. Engineering specifications are used to define form, fit, function, materials, tolerances, and manufacturing techniques. These containers are accountable according to service or agency requirements.

Unit pack
The first tie, wrap, or container applied to a single item, or a quantity thereof, or to a group of items of a single stock number, preserved or unpreserved, that constitutes a complete or identifiable package.

Unitization
Assembly of exterior packs of one or more line items of supply into a single load so that the load can be handled as a unit through the distribution system. Unitization (unitized loads or unit loads) encompasses consolidation in a container, placement on a pallet or load base, or securely binding together.

Section III
Special Abbreviations and Terms
This section contains no entries.

Index

This index is organized alphabetically by topic and by subtopic within a topic. Topics and subtopics are identified by paragraph number.